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EXAMINER	
ZUNIGA, JACKIE	

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2469	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/044,446	HAWKINS ET AL.	
	Examiner	Art Unit	
	JACKIE ZUNIGA	2469	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 November 2010*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-19,21,23-27 and 29* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-19,21,23-27 and 29* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *10 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-7, 9-19, 21, 23-27, and 29 are presented for examination.

2. Claims 1, 9, 10, 12, 13-19, 21, and 23 are amended.

3. Claims 8, 20, 22, 28, and 30 are canceled.

Response to Arguments

4. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Claim Objections

5. Claims 10 and 23 are objected to because of the following informalities: Claim 10 discloses "... the failure of one of the plurality of management controllers fails corrupts only..." the Examiner recommends replacing the limitation with --... the failure of one of the plurality of management controllers corrupts only...--.

6. Claim 23 does not end with a period as specified in the MPEP. *See MPEP § 608.01(m).*

Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. **Claims 1-7, 9-12, 23-27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ginzburg, European Patent Application EP 1,117,018, in view of Larson et al., U.S. Publication No. 2003/0033464.**

9. **As per claim 1,** Ginzburg discloses a star intelligent platform management bus topology, comprising:

A central baseboard management controller, coupled to a plurality of management controllers, to provide autonomous monitoring, event logging, and recovery control [paragraph 0017, a central control module coupled to a plurality of controllers for the monitoring and/or measuring and/or controlling of devices];

The plurality of management controllers, to receive a command message from the central baseboard management controllers, to gather information from a device, to package the information, and to transmit a response message with the information to the central baseboard management controller [paragraphs 0017-0019, a plurality of controllers that support data exchange and conversion of data; the controllers are coupled to a monitoring and/or measuring and/or control sensor and/or control device];

Ginzburg discloses a hierarchical-star (bus-star) architecture connecting the plurality of controllers to the central control module, wherein each controller is connected via a bus to the central control module [fig. 1, paragraphs 0025, 0032], but he does not explicitly disclose wherein the bus corresponds to a plurality of intelligent platform management buses that provide a communication connection.

However Larson teaches wherein the bus corresponds to a plurality of intelligent platform management buses that provide a communication connection [paragraphs 0042, 0046, 0048, a plurality of intelligent platform management buses providing communication connections].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Ginzburg with the teaching of Larson, by including a plurality of intelligent platform management buses that provide a communication connection to provide bi-directional communication so that status information can be sent from and to the central control module [Larson, paragraph 0021].

The limitation of providing autonomous monitoring, event logging, and recovery control; is not given any patentable weight since they simply express the intended result of the process steps positively recited. See MPEP § 2111.04 [R-3].

10. **As per claim 2,** Ginzburg discloses the star intelligent platform management bus topology of claim 1, but he does not explicitly disclose wherein the central baseboard management controller includes or is connected to a non-volatile storage unit, and the non-volatile storage unit has a system event log, a sensor data record depository, and a baseboard field replaceable unit information module.

However Larson teaches wherein the central baseboard management controller includes or is connected to a non-volatile storage unit, and the non-volatile storage unit has a system event log, a sensor data record depository, and a baseboard field

replaceable unit information module [fig. 5, paragraphs 0035, 0059, SMC also includes a DRAM 504 comprising a hardware table, that includes information representing the physical configuration of the system; a system event log (SEL) is maintained in SMC to keep records of alarms and events].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Ginzburg with the teaching of Larson, by including a non-volatile storage unit to properly monitor the health of the system and its components [Larson, paragraph 0058].

11. **As per claim 3,** Ginzburg discloses the star intelligent platform management bus topology of claim 1,

Wherein the central baseboard management controller includes or is connected to sensors and control circuitry to monitor voltages, temperatures, power, fans, and reset control [paragraphs 0010, 0022, 0036, 0037, engineering equipment (sensor and control devices) built around a central control node may include level, flow, temperature and pressure sensors].

12. **As per claim 4,** Ginzburg discloses the star intelligent platform management bus topology of claim 1,

Wherein the central baseboard management controller is the gateway between system management software and platform management hardware [paragraphs 0010, 0011, a central control module that provides centralized acquisition of monitoring data; it

is well known in the related art that this monitoring system may be performed by a BMC which manages the interface between the system management software and the platform management hardware, as disclosed in Applicant's specification page 2, lines 10-14].

13. **As per claim 5,** Ginzburg discloses the star intelligent platform management bus topology of claim 4, wherein a hierarchical star (bus-star) circuit may be used for connecting the plurality of controllers to the central control module [paragraphs 0023, 0032], but he does not explicitly disclose wherein the bus corresponds to a plurality of intelligent platform management buses and an intelligent chassis management bus that provide a communication connection.

Wherein the platform hardware management includes the plurality of intelligent platform management buses and an intelligent chassis management bus, and the intelligent chassis management bus is used for power and reset control, chassis status, events, and field replaceable unit inventory [paragraphs 0023, 0032, a hierarchical star (bus-star) circuit for connecting the plurality of controllers to the central control module].

However Larson teaches wherein the bus corresponds to a plurality of intelligent platform management buses and an intelligent chassis management bus that provide a communication connection [paragraphs 0042, 0046, 0048, a plurality of intelligent platform management buses and system management buses providing communication connections].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Ginzburg with the teaching of Larson, by including a plurality of intelligent platform management buses and system management buses that provide a communication connection to provide bi-directional communication so that status information can be sent from and to the central control module [Larson, paragraph 0021].

The limitation of utilizing the bus for power and reset control, chassis status, events, and field replaceable unit inventory; is not given any patentable weight since they simply express the intended result of the process steps positively recited. See MPEP § 2111.04 [R-3].

14. **As per claim 6,** Ginzburg discloses the star intelligent platform management bus topology of claim 1, wherein the start intelligent topology comprises a plurality of management controllers [fig. 1], but he does not explicitly disclose wherein the plurality of management controllers resides on at least one chassis module

However Larson teaches wherein the plurality of management controllers resides on at least one chassis module [paragraph 0058, monitoring a chassis environment using the IPMI standard including a plurality of controllers].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Ginzburg with the teaching of Larson, by including a plurality of management controllers residing on at least one chassis

module to properly monitor the health of the system and its components [Larson, paragraph 0058].

15. **As per claim 7,** Ginzburg discloses the star intelligent platform management bus topology of claim 1,

Wherein the plurality of management controllers gather information from sensors and package the information in suitable transmission formats for sending via the plurality of intelligent platform management buses, which are adapted to carry streams of data [paragraphs 0018, 0019, controllers that gather information (signals) from sensors and control devices and convert the data to a common network protocol].

16. **As per claim 9,** Ginzburg discloses the star intelligent platform management bus topology of claim 1, wherein the start intelligent topology comprises a plurality of management controllers [fig. 1], but he does not explicitly disclose wherein at least one of the plurality of management controllers is replaced with at least one remote baseboard management controller so that the central baseboard management controller appears as a satellite management controller without baseboard management controller functionality to the at least one remote baseboard management controller.

However Larson teaches wherein at least one of the plurality of management controllers is replaced with at least one remote baseboard management controller so that the central baseboard management controller appears as a satellite management controller without baseboard management controller functionality to the at least one

remote baseboard management controller [paragraph 0073, replacing any component in the system without interrupting the rest of the system].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Ginzburg with the teaching of Larson, by including a plurality of management controllers residing on at least one chassis module to properly monitor the health of the system and its components [Larson, paragraph 0058].

17. **As per claim 10,** Ginzburg discloses the star intelligent platform management bus topology of claim 1, but he does not explicitly disclose wherein the bus topology is configured so the failure of one of the plurality of management controllers fails corrupts only the intelligent platform management bus to which it is coupled to provide fault isolation.

However Larson teaches wherein the bus topology is configured so the failure of one of the plurality of management controllers fails corrupts only the intelligent platform management bus to which it is coupled to provide fault isolation [paragraph 0052, if a failure is detected it may cause the device to be shutdown to prevent damage to components in the affected area].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Ginzburg with the teaching of Larson, by including a plurality of management controllers residing on at least one chassis

module to properly monitor the health of the system and its components [Larson, paragraph 0058].

18. **As per claim 11,** Ginzburg discloses the star intelligent platform management bus topology of claim 1,

Wherein the baseboard management controller and the plurality of management controllers share addresses [paragraphs 0028, 0029, including redundant devices for device failover].

19. **As per claim 12,** Ginzburg discloses the star intelligent platform management bus topology of claim 1, but he does not explicitly disclose wherein each of a plurality of modules which corresponds to the plurality of management controllers is isolated so that each management controller for each module communicates directly with only a central baseboard management controller associated with a chassis to provide multiple owner security.

However Larson teaches wherein each of a plurality of modules which corresponds to the plurality of management controllers is isolated so that each management controller for each module communicates directly with only a central baseboard management controller associated with a chassis to provide multiple owner security [paragraphs 0020, 0032, 0058, wherein the SMC monitors the operational health of the system and its devices to ensure reliable operation of the system; it is well

known that the monitoring of the health may include monitoring of the systems' physical security].

20. **As per claim 23,** Ginzburg discloses a method of configuring a star intelligent platform management bus topology, comprising:

Providing a central baseboard management controller [paragraph 0017, a central control module];

Providing a first management controller [paragraphs 0017-0019, a plurality of controllers that support data exchange and conversion of data; the controllers are coupled to a monitoring and/or measuring and/or control sensor and/or control device];

Connecting the central baseboard management controller to the first management controller via a bus [paragraph 0017, a central control module coupled to a plurality of controllers for the monitoring and/or measuring and/or controlling of devices];

Providing a second management controller [paragraphs 0017-0019, a plurality of controllers that support data exchange and conversion of data; the controllers are coupled to a monitoring and/or measuring and/or control sensor and/or control device];

Connecting the central baseboard management controller to the second management controller via a second intelligent platform management bus [paragraph 0017, a central control module coupled to a plurality of controllers for the monitoring and/or measuring and/or controlling of devices];

Ginzburg discloses a hierarchical-star (bus-star) architecture connecting the plurality of controllers to the central control module, wherein each controller is connected via a bus to the central control module [fig. 1, paragraphs 0025, 0032], but he does not explicitly disclose wherein the bus corresponds to a plurality of intelligent platform management buses that provide a communication connection.

However Larson teaches wherein the bus corresponds to a plurality of intelligent platform management buses that provide a communication connection [paragraphs 0042, 0046, 0048, a plurality of intelligent platform management buses providing communication connections].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Ginzburg with the teaching of Larson, by including a plurality of intelligent platform management buses that provide a communication connection to provide bi-directional communication so that status information can be sent from and to the central control module [Larson, paragraph 0021].

21. **As per claim 24,** Ginzburg discloses the method of claim 23, wherein the start intelligent topology comprises a plurality of management controllers [fig. 1], wherein the plurality of management controllers gather information from sensors and package the information in suitable transmission formats for sending via the plurality of intelligent platform management buses, which are adapted to carry streams of data [paragraphs 0018, 0019, controllers that gather information (signals) from sensors and control

devices and convert the data to a common network protocol], but he does not explicitly disclose wherein the plurality of management controllers resides on at least one chassis module

However Larson teaches wherein the plurality of management controllers resides on at least one chassis module [paragraph 0058, monitoring a chassis environment using the IPMI standard including a plurality of controllers].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Ginzburg with the teaching of Larson, by including a plurality of management controllers residing on at least one chassis module to properly monitor the health of the system and its components [Larson, paragraph 0058].

22. **As per claim 25,** Ginzburg discloses the method of claim 24,

Wherein the first management controller and the second management controller send event messages to the central baseboard management controller [paragraphs 0017-0019, a plurality of controllers that support data exchange and conversion of data; the controllers are coupled to a monitoring and/or measuring and/or control sensor and/or control device].

23. **As per claim 26,** Ginzburg discloses the method of claim 23,

Wherein the central baseboard management controller manages an intelligent platform management interface event log, monitors voltages, temperatures, power,

reset control, and fans, and manages a non-volatile storage for data records [paragraphs 0018, 0019, 0022, 0036, engineering equipment (sensor and control devices) built around a central control node may include level, flow, temperature and pressure sensors].

24. **As per claim 27,** Ginzburg discloses the method of claim 26, but he does not explicitly disclose wherein a central processing unit requests and receives information from the intelligent platform management interface event log through the central baseboard management controller and inquires about changes in the event log since a previous inquiry.

However Larson teaches wherein a central processing unit requests and receives information from the intelligent platform management interface event log through the central baseboard management controller and inquires about changes in the event log since a previous inquiry [fig. 5, paragraphs 0035, 0059, SMC also includes a DRAM 504 comprising a hardware table, that includes information representing the physical configuration of the system; a system event log (SEL) is maintained in SMC to keep records of alarms and events].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Ginzburg with the teaching of Larson, by including a plurality of management controllers residing on at least one chassis module to properly monitor the health of the system and its components [Larson, paragraph 0058].

25. **As per claim 29,** Ginzburg discloses the method of claim 23,

Wherein the star intelligent platform management bus topology provides separate address domains to the central baseboard management controller, the first management controller, and the second management controller to allow address sharing [paragraph 0029, including redundant devices for device failover].

26. **Claims 13-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larson, in view of Ginzburg.**

27. **As per claim 13,** Larson discloses a central baseboard management controller system that allows communication between a central processing unit and a plurality of controllers [paragraph 0032, the SMC includes supervising the operation of other components within the system (controllers) and reporting their health to a central location], comprising:

An intelligent platform management interface that provides monitoring and control functions [paragraph 0043, intelligent platform management interface providing a platform for management of hardware];

A plurality of intelligent platform management buses for communication to and between the plurality of controllers and for extending management control, monitoring, and event delivery within a chassis [paragraphs 0021, 0042, 0043, a plurality of

intelligent platform management devices for retrieving information (data) from the plurality of devices in the system];

An intelligent chassis management bus for chassis and emergency management functions including power and reset control, chassis status, events, and inventory [paragraphs 0042, 0046, 0048, a plurality of system management buses];

Larson discloses a plurality of intelligent platform management buses that provide a communication connection [paragraphs 0042, 0046, 0048], but he does not explicitly disclose wherein each of the plurality of intelligent platform management busses only connects a corresponding one of the plurality of management controllers to the central baseboard management controller.

However Ginzburg teaches a hierarchical-star (bus-star) architecture connecting the plurality of controllers to the central control module, wherein each controller is connected via a bus to the central control module [fig. 1, paragraphs 0025, 0032].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Larson with the teaching of Ginzburg, by implementing a hierarchical-star (bus-star) architecture connecting the plurality of controllers to the central control module to integrate the structured monitoring and control system with other automated supervision and information systems of various levels [Ginzburg, paragraphs 0006-0008].

28. **As per claim 14,** Larson discloses the central baseboard management controller system of claim 13,

Wherein the plurality of intelligent platform management buses are inter-integrated circuit bus based [paragraphs 0021, 0042, management buses such as Inter-IC (I^2C) buses].

29. **As per claim 15,** Larson discloses the central baseboard management controller system of claim 13,

Wherein the central processing unit requests and receives information from an intelligent platform management interface event log through the central baseboard management controller [fig. 5, paragraphs 0035, 0059, SMC also includes a DRAM 504 comprising a hardware table, that includes information representing the physical configuration of the system; a system event log (SEL) is maintained in SMC to keep records of alarms and events].

30. **As per claim 16,** Larson discloses the central baseboard management controller system of claim 15,

Wherein the central processing unit inquires about changes in the event log since a previous inquiry [paragraphs 0035, 0064].

31. **As per claim 17,** Larson discloses the central baseboard management controller system of claim 13,

Wherein the central baseboard management controller is connected to a system bus on a computer chassis motherboard through a system interface [paragraphs 0016, 0021, 0047].

32. **As per claim 18,** Larson discloses the central baseboard management controller system of claim 17,

Wherein the motherboard is connected to a network controller and a network connector [paragraphs 0016, 0021, 0047].

33. **As per claim 19,** Larson discloses the central baseboard management controller system of claim 13,

Wherein the intelligent chassis management bus is RS-485 based and is coupled to RS-485 transceivers [fig. 5, paragraphs 0040, 0050, utilizing RS 232 links; it is well known in the art that an ICMB may be RS485 based which is the standard for multipoint connections as disclosed in Applicants related art, page 2, lines 4-9].

34. **As per claim 21,** Larson discloses the central baseboard management controller system of claim 13, but he does not explicitly disclose wherein the star topology provides separate address domains to the central baseboard management controller and the plurality of management controllers thus allowing address sharing.

However Ginzburg teaches wherein the star topology provides separate address domains to the central baseboard management controller and the plurality of

management controllers thus allowing address sharing [paragraph 0029, including redundant devices for device failover].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Larson with the teaching of Ginzburg, by implementing a hierarchical-star (bus-star) architecture connecting the plurality of controllers to the central control module to integrate the structured monitoring and control system with other automated supervision and information systems of various levels [Ginzburg, paragraphs 0006-0008].

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACKIE ZUNIGA whose telephone number is (571)270-7194. The examiner can normally be reached on Monday - Friday 8:30 A.M to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ian Moore can be reached on (571)272-3085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J.Z./
Examiner, Art Unit 2469

/Ian N. Moore/

Supervisory Patent Examiner, Art Unit 2469